

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MICHIGAN  
SOUTHERN DIVISION

SANDRA D. PAUL,

Plaintiff,

v.

HENRI-LINÉ MACHINE TOOLS, INC.,

Defendant.

Case No. 10-10832

Honorable Julian Abele Cook, Jr.

ORDER

This is a product liability action in which the Plaintiff, Sandra D. Paul, acting in her official capacity as the personal representative of the deceased estate of Jay Curtis Paul<sup>1</sup>, alleges that a milling machine that had been manufactured by the Defendant, Henri-Liné Machine Tools, Inc., was defective in its design and, in turn, ultimately caused the death of her husband during his usage of the machine.

In essence, this case goes back to July 30, 2008 when the Plaintiff's husband, while operating one of the Defendant's overhead gantry milling machines ("milling machine"), left his operator's booth and subsequently became entangled in its vertical cutting tool which ultimately caused him to incur fatal wounds to his head and shoulder. This lawsuit followed on March 1, 2010. Thereafter,

the Plaintiff filed a motion which was designed to exclude the testimony of the Defendant's expert

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<sup>1</sup>During the course of this order, the Court has interchanged the name of the Plaintiff's deceased husband (Jay Curtis Paul) and "the Deceased" only for the purpose of writing style.

witness, Jack Auflick. The Defendant filed a “counter” motion in an effort to strike the Plaintiff’s rebuttal expert, Douglas Nix. Both motions were referred to a magistrate judge for her written evaluation of the merits, if any, of the parties’ specific requests.

On August 24, 2012, the magistrate judge submitted a report, in which she recommended that the Court (1) deny the Plaintiff’s application for relief, and (2) grant the Defendant’s motion to strike the testimony of expert witness, Lance Nix. Objections by the Plaintiff followed.

I.

The subject of this litigation is a large, complex milling machine with computerized numeric controls that is designed to cut machine metal. The operation of this milling machine is controlled by personnel who perform their work assignments from a platform. However, these operators - at various times during their work day - are obliged to leave the platform and perform assigned tasks on the bed of the milling machine while the tool is in operation, such as removing metal chips that had been created by the cutting tool.

While preparing its defense to the Plaintiff’s allegations in the complaint, the Defendant hired Jack Auflick to perform a human reliability analysis in effort to determine the probability that an accident, such as the one which was experienced by the Deceased, could occur. Thereafter, Auflick, following his (1) examination of the milling machine and accident work site, (2) interviews of witnesses, and (3) review of the employer’s common practices, concluded that the death of Jay Curtis Paul was caused by human error.

In his first expert report, dated September 1, 2011, Auflick utilized a type of human reliability analysis known as the “Accident Sequence Evaluation Procedure,” in an effort to calculate the probability of a fatal accident during the use of this milling machine. According to

Auflick, he initially determined that the ratio of fatal injuries to the number of hours of operator exposure equaled less than one in one hundred million. To complete this probability evaluation, he determined that this ratio must be multiplied by a human error probability, which he determined to be 0.03. On the basis of this analysis, Auflick concluded that the milling machine did not require any additional safeguards.

During a post-evaluation deposition, Auflick opined that the death of Jay Curtis Paul was not caused by an error in the programming of the milling machine. When questioned about his selection of 0.03 as the value for the human error probability during his deposition, Auflick asserted that this numerical figure was a conservative estimate that did not take into account the experience of the Deceased as an operator of the milling machines.

Approximately, two months after the completion of this deposition, the Defendant filed a motion for the entry of a summary judgment which included a supplemental report by Auflick (dated December 1, 2011) wherein he expanded some of the answers that he had given in his deposition in the following manner: First, instead of using the “Accident Sequence Evaluation Procedure” to determine the human error probability, Auflick used another method (i.e., the Human Error Assessment and Reduction Technique) to evaluate Jay Curtis Paul’s level of experience in operating a milling machine. He explained that this method had been adopted by him in order to verify that the figure of 0.03 in his original report was a conservative estimate. Second, Auflick estimated that the likelihood that the accident was caused by a programming error committed by an operator with the Deceased’s level of experience was less than the chance of being struck by lightning.

Several weeks later, the Plaintiff filed a motion seeking to exclude Auflick’s more recent

probability testimony because it had failed to meet the requirements of Federal Rule of Evidence 702, as supplemented by *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). Shortly thereafter, the Defendant filed a response which included an affidavit by Auflick, who provided the Court with a more detailed explanation of his calculations, along with the identities of multiple publications which ostensibly supported his contention that the methodology - now challenged by the Plaintiff - is commonly accepted in the scientific community.

In June 2012, four months after the submission of Auflick's affidavit, the Plaintiff proffered a second supplemental expert disclosure which consisted of a rebuttal report from its expert witness, Douglas Nix. Soon thereafter, the Defendant filed a motion to strike Nix as an expert witness. On August 8, 2012, the magistrate judge, to whom these two motions that had been referred for her evaluation, denied the Plaintiff's motion which sought to obtain the exclusion of Auflick's expert testimony:

Having reviewed and considered all of the briefs and supporting documents submitted in this matter, and having further considered the oral arguments of counsel, the Court finds that the methodologies relied upon by Dr. Auflick in his expert and supplemental expert reports are relevant and reliable. The Court is not persuaded that Dr. Auflick's theories amount to junk science or that Dr. Auflick's testimony should be excluded from trial.

The magistrate judge also granted the Defendant's motion to strike Douglas Nix as an expert witness because, in her opinion, the submission of his name was untimely, holding that (1) the Plaintiff had not proffered a good cause for failing to satisfy the filing deadline, as established by Rule 26(a)(2), and (2) the Plaintiff had not proven that she was unable to anticipate the need for Nix's rebuttal testimony pursuant to E.D. LR 16.2(b)(8). The magistrate judge explained her reasoning as follows:

Federal Rule of Civil Procedure 26(a)(2)(D)(ii) requires that evidence "intended

solely to contradict or rebut evidence on the same subject matter identified by another party under Rule 26(a)(2)(B) or (C))” must be disclosed within 30 days after the other party’s disclosure. Fed. R. Civ. P. 26(a)(2)(D)(ii). Defendant’s expert disclosures were due September 2, 2011 and neither party has indicated that Defendant’s disclosures were delayed. Additionally, Eastern District of Michigan Local Rule 16.2(b)(8) states that “[o]nly listed witnesses will be permitted to testify at trial, except for rebuttal witnesses whose testimony could not be reasonably anticipated before trial, or except for good cause shown.” The Court finds that Plaintiff has failed to show good cause or demonstrate that she could not anticipate the need for expert testimony to rebut the testimony of Dr. Auflick.

Although the Plaintiff expressed her objections to these rulings, the Court notes that the standard of review regarding the decisions of a magistrate judge on non-dispositive motions is one of clear error. With recognition that a motion to exclude expert testimony is a non-dispositive motion, 28 U.S.C. § 636(b)(1)(A); E.D. Mich. LR 7.1(e), a district court may reconsider a magistrate’s non-dispositive order only if it is shown to be clearly erroneous or contrary to law. Fed. R. Civ. P. 72(a); 28 U.S.C. § 636(b)(1)(A). A “decision is clearly erroneous if although there is evidence to support it, the reviewing court on the entire evidence is left with the definite and firm conviction that a mistake has been committed.” *Laethem Equipment Co. v. Deere & Co.*, 261 F.R.D. 127, 135 (E.D. Mich. 2009) (internal quotation marks omitted) (quoting *United States v. United States Gypsum Co.*, 333 U.S. 364, 395 (1948)). Thus, the Plaintiff’s objection will be overruled.

### III.

The Court will now address the Plaintiff’s motion to strike Auflick’s probability testimony, wherein she, in her original motion, asked the Court to exclude his supplemental report, affidavit, and that portion of his original report wherein he concluded that the likelihood of this accident occurring was less than one in one hundred million because they were tendered in violation of Fed. R. Evid. 702 and the Rule 26 disclosure schedule.

The Plaintiff's first objection relates to the magistrate judge's determination that Auflick's probability opinions had met the minimum standards of admissibility established by Fed. R. Evid. 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). Specifically, it is her contention that "Auflick's 'probability' testimony is mathematical mumbo-jumbo, using undisclosed, unverified data, employing unsuitable methods, and based on unwarranted and arbitrary assumptions. It is exactly the type of baseless, misleading expert testimony that *Daubert* demands be excluded from trial." The Defendant disagrees, contending that (1) Auflick's probability analysis is generally accepted in the scientific community and (2) cross-examination – rather than exclusion – is the appropriate means of addressing the Plaintiff's disagreements with Auflick's opinions.

The admissibility of expert testimony is governed by the Federal Rules of Evidence, which provide as follows:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's skill, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702.

The Supreme Court elaborated upon the requirements of this Rule in *Daubert* in the following manner. "[U]nder the Rules the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable." *Id.* at 589. The *Daubert* Court listed four factors that courts may consider: whether the challenged theory or technique (1) can be and has been tested, (2) has been subjected to peer review or publication, (3) is subject to a known or potential error rate, and (4) is generally accepted by the scientific community. *Id.* at

593-94. “Widespread acceptance can be an important factor in ruling particular evidence admissible,” *id.* at 594, but “[g]eneral acceptance is not a necessary precondition to the admissibility of scientific evidence,” *id.* at 597 (internal quotation marks omitted). The Supreme Court emphasized that the required inquiry is flexible and courts may consider other factors as well. *Id.* at 594. “Thus, under Fed.R.Evid. 702’s codification of *Daubert*, the general rule of liberal admission of proper evidence is retained.” *United States v. Nacchio*, 555 F.3d 1234, 1280 (10th Cir. 2009).

A review of the official record supports the Defendant’s position when it argued that the magistrate judge did not commit clear error when she determined that the human reliability analysis in general is a reliable and relevant scientific methodology. To support the adoption of Auflick’s report, the Defendant has proffered a series of publications, all of which facially validated the utilization of human reliability analysis. *See, e.g.*, Def. Resp., ECF No. 41, Ex. 28 at 218 (“The study of human reliability has been extensively studied in different fields.” (citations omitted)); *id.*, ECF No. 41, Ex. 10 at 392 (determining that human error assessment and reduction technique is useful “in determining how to cost-effectively reduce human-error factor); *id.* Ex. ECF No. 41, Ex. 29 at 30-31 (applying human reliability analysis to marine oil and gas industry). Although the Plaintiff submitted a counter article, Pl. Mot., ECF No. 34, Ex. 5, which cast doubt on the validity of the human reliability analysis, the magistrate judge, after reviewing this publication, concluded that it provided her with an insufficient basis upon which to exclude the challenged testimony. Notwithstanding, the Plaintiff asserts that the human reliability analysis methods are best used for complex mechanical systems, as opposed to an analysis of a single machine. However, it should be noted that the Plaintiff has not produced evidence which

indicates that these now-challenged techniques must be used exclusively with complex mechanical systems. On the other hand, the Defendant has supplied at least one publication which indicates that the human reliability analysis methods may be applied to a single activity. Def. Resp., ECF No. 41, Ex. 32 at 32 (“[m]anagers can use the human reliability analysis methods] to study small-scale as well as large-scale enterprises. For example, a [human reliability analysis method] can be performed on a single activity, such as a loading procedure.”).

Similarly, the Plaintiff has not produced any reliable evidence upon which this Court can, or should, conclude that the magistrate judge committed clear error when she determined that the Accident Sequence Evaluation Procedure and the Human Error Assessment and Reduction Technique, in particular, are valid methodologies. The Plaintiff claims that the application of the Accident Sequence Evaluation Procedure is (1) limited to complex industries and (2) grossly unreliable. Pl. Objection 6-9, ECF No. 97. Defendant, however, indicated that Auflick’s work in the nuclear industry applied the Accident Sequence Evaluation Procedure specifically to the analysis of milling machines. Defendant also noted that the Accident Sequence Evaluation Procedure, as a rule, tends to produce conservative estimates and that Auflick adopted conservative assumptions; therefore, any uncertainty will weigh in Plaintiff’s favor. It also appears well-documented that Human Error Assessment and Reduction Technique may be applied across multiple fields. *See, e.g.*, Def. Resp., ECF No. 41, Ex. 27 at 91 (Human Error Assessment and Reduction Technique was “designed for application across a range of domains, although . . . it’s [sic] developer . . . was working almost exclusively in the nuclear industry at the time. The date on which [it] was based did not rely exclusively on human performance data



within the nuclear domain . . . .”) (internal citation omitted); *id.*, ECF No. 41, Ex. 34 (applying Human Error Assessment and Reduction Technique to fatigue risk assessments of aircraft maintenance tasks); *id.*, ECF No. 41, Ex. 29 (applying Human Error Assessment and Reduction Technique in the context of railroad yard issues).

On the other hand, the Human Error Assessment and Reduction Technique, as a methodology, has its limitations. *See, e.g., id.*, ECF No. 41, Ex. 32 at 36 (“[v]arious aspects of Human Error Assessment and Reduction Technique are highly subjective, with the results being very sensitive to the analyst’s assumptions. The same problem, using identical data and models, may generate widely varying answers when analyzed by different experts, or by the same expert at different times.”). However, these limitations are insufficient bases upon which to establish that the admission of Auflick’s testimony was clear error. *Cf. id.* (“Despite these limitations, [the application of Human Error Assessment and Reduction Technique] is an extremely valuable tool for identifying and evaluating ways to reduce human errors.”). If she desires, the Plaintiff may contest at trial the assumptions used by Auflick in his calculations. *See Daubert*, 509 U.S. at 596 (“Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”).

In addition to contesting the relevance of Auflick’s methodologies in general, the Plaintiff objects to the admission of Auflick’s specific calculation that the likelihood of this accident occurring is less than one in one hundred million, claiming that the equation is nonsensical. The Court does not agree, in that the Defendant has explained the reasoning behind his calculation in the report, in its brief, and during Auflick’s deposition. The figure constitutes a ratio of the

number of fatal injuries on an overhead gantry milling machine divided by the total number of hours of operator exposure. Thus, the Court concludes that (1) the decision by the magistrate judge to admit this testimony was not clear error, and (2) the Plaintiff will be entitled to express her objections to specific assumptions used in the calculations by the Defendant during the trial.

The Plaintiff's second objection relates to Auflick's supplemental report and affidavit which, in her opinion, were not timely filed. ("Auflick's December supplemental report and February affidavit are improper revisions and expansions of his original expert report, filed outside the time limit for Defendant's expert disclosures, and not included in any 26(a)(2)(B) supplemental disclosures.") The magistrate judge's order did not address the issue of timeliness. For the reasons stated below, the Court holds that the issue of the timeliness of Auflick's supplemental report has been waived.

Significantly, the Plaintiff's original motion to exclude Auflick's testimony only challenged the substance of the report - but not its timing. Although the Plaintiff received the supplemental report several months prior to filing her motion, she failed to raise the issue of timeliness until her reply brief. A reply is not the proper place to raise an argument for the first time. *See, e.g., Scottsdale Ins. Co. v. Flowers*, 513 F.3d 546, 553 (6<sup>th</sup> Cir. 2008) (issues raised for first time in reply brief are waived); *Martinez v. Comm'r of Social Sec.*, No. 09-13700, 2011 WL 1233479, at \*2 n.1 (E.D. Mich. Mar. 30, 2011) ("[T]he new arguments that [the plaintiff] raised for the first time in the reply brief were correctly disregarded by the magistrate judge."). Inasmuch as the timing of Auflick's December 2011 report was first raised in the reply brief, the Court will consider it to have been waived.

Auflick's affidavit, on the other hand, was first proffered in the Defendant's response to

the Plaintiff's motion. Therefore, the Plaintiff's reply brief was the first opportunity to contest its timing. Hence, the issue regarding its admissibility is properly before the Court. However, the Defendant contends that the affidavit is not a Rule 26 disclosure at all, but rather a "clarification of Plaintiff's misstatements about his analysis" that "set[s] forth his analysis and provid[es] a number of authoritative articles supporting the use of the methods utilized by Auflick."

The Court agrees that the inclusion of these articles which facially support the validity of Auflick's methodology does not convert his affidavit into an untimely Rule 26 disclosure. Those sources were not offered to support the substance of Auflick's opinion that the probability of the fatal accident is exceedingly small. *Cf.* Fed. R. Civ. P. 26(a)(2)(B) (requiring submission of facts, data, and exhibits supporting opinions to which witness will testify). Rather, they support the proposition that the methodology used to reach Auflick's conclusion is generally accepted by the scientific community. The Plaintiff does not cite any legal authority for her assertion that Rule 26 requires the submission of such articles prior to a *Daubert* challenge.

On the other hand, the calculations contained within Paragraph 16 of the affidavit, which determined that "the likelihood of a human error resulting in death in the use of the [milling machine]," implicate the substance of Auflick's opinion. The Plaintiff argues that "[Auflick's] opinions and the bases for them have changed," and therefore "[his] affidavit is in effect a new, out of time Rule 26 disclosure, presenting new opinions and new bases for the opinions." The Defendant adopts a differing point of view by asserting that the affidavit "is not a supplemental report but an explanation of the methodology relied upon in reaching Auflick's opinions." The Court agrees with the Plaintiff and will strike Paragraph 16 from the affidavit.

Fed. R. Civ. P. 26(a)(2)(B) requires an expert to include in his initial report not only a

statement of the witness' opinions but also "the basis and reasons for them" and "the facts or data considered by the witness in forming them." In this case, the basis for Auflick's opinion regarding the probability of this accident consists of the assumptions and calculations within his original report.<sup>2</sup> Paragraph 16 of Auflick's affidavit, however, describes a mathematical process that bears no resemblance to anything included in his original report. Not only does the affidavit use error probabilities derived from the Human Error Assessment and Reduction Technique as opposed to the Accident Sequence Evaluation Procedure, but the initial probability calculation is also different.<sup>3</sup> Therefore, the Court fails to understand to what extent, if any, the affidavit serves as an explanation of the methodology applied by Auflick in his original report. For the purpose of clarity, and because his affidavit appears to explain a process other than that which was submitted by Auflick in his original report, the Court will strike Paragraph 16 of the affidavit from further consideration.

B.

The Court will now address the Plaintiff's objections to the magistrate judge's decision to

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<sup>2</sup>The Defendant has repeatedly stated that the content of Auflick's supplemental report is not necessary to support his original opinion. The supplemental report was submitted to (1) demonstrate that the probability determination within the original submission is more conservative than the actual probability and (2) address the Plaintiff's questions regarding the possibility of programming error.

<sup>3</sup>For example, the Court notes that the original probability calculation takes into account that "the operator has to be on the bed near the cutting head 5% of the time to perform required tasks (i.e. once per hour for three minutes)." This factor was omitted in the affidavit's calculations. In addition, assumptions regarding the number and age of machines, the number and length of shifts, and the utilization rate have all been changed in the affidavit. The original report expressly limited its discussion of probability to two specific errors; namely, "the failure to recognize the open and obvious hazard" and "the voluntary and intentional placing of the operator at the point of operation." The affidavit does not appear to limit itself to a discussion of any particular errors.

grant the Defendant's motion to strike Douglas Nix as an expert witness in this case. In support of its argument, the Plaintiff maintains that the failure of the magistrate judge to find a good cause for the late filing is a faulty conclusion, because she had no notice that a rebuttal expert would be necessary until Defendant submitted Auflick's supplemental report in December 2011.

Additionally, the Plaintiff argues that the thirty day limit imposed by Fed. R. Civ. P.

26(a)(2)(D)(ii)<sup>4</sup> has not yet begun to run because the Defendant never submitted the December and February reports as Rule 26(a) disclosures. These arguments lack merit, and the Court will adopt the report by the magistrate judge over the Plaintiff's objections.

The magistrate judge correctly concluded that Auflick's original report provided sufficient notice to the Plaintiff regarding the need for a rebuttal expert witness. There is nothing in the record which suggests that the Plaintiff's decision to enlist the aid of Nix was triggered by the Defendant's filing of Auflick's supplemental report. Rather the decision appears to have been motivated by a disagreement with Auflick's original calculation that the probability of the accident was less than one in one hundred million.

Throughout his report, Nix disputes Auflick's findings, as well as the methodologies that were used by him, in both his original report and supplemental reports. For example, in his summary, Nix applied each of his conclusions regarding the errors in Auflick's methodology equally to both reports. Inasmuch as there was no distinction made between the methodologies in the two reports, the Plaintiff's contention that she realized the need for a rebuttal expert only after

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<sup>4</sup>Fed. R. Civ. P. 26(a)(2)(D)(ii) states that without a court order, expert disclosures must be made "if the evidence is intended solely to contradict or rebut evidence on the same subject matter identified by another party under Rule 26(a)(2)(B) or (c), within 30 days after the other party's disclosure."

receiving the second report is not convincing. There is other evidence which supports the Defendant's argument that Auflick's original report provided the Plaintiff with sufficient notice. First, the report from Nix specifically refutes the probability calculation in Auflick's original report. But perhaps most telling was the statement made by Plaintiff's counsel at the motions hearing, insisting that "I want Mr. Nix to come up after Dr. Auflick testifies and give [sic] his one in a hundred million number to say, well, that guy is doing it wrong, ladies and gentlemen of the jury, and here's why I think that." Mot. Hr'g Tr. 43, Aug. 8, 2012, ECF No. 99. As the supplemental report does not purport to modify the final probability of one in one hundred million estimate, any deficiency in this calculation that the Plaintiff wishes to challenge would have been apparent from the original report. Thus, it was not clear error for the magistrate judge to have concluded that the original report provided the Plaintiff with sufficient notice regarding the need for a rebuttal witness.

Finally, the Plaintiff has not presented the Court with any legal authority to support her argument that Rule 26 disclosures must be expressly labeled as such. Therefore, her argument that the thirty day limit imposed by Fed. R. Civ. P. 26(a)(2)(D)(ii) has not begun to run is without merit.

#### IV.

For the reasons that have been outlined above, the Court will (1) grant in part and deny in part the Plaintiff's motion to exclude the probability testimony of expert witness Jack Auflick (ECF No. 34) and (2) grant the Defendant's motion to strike the testimony of expert witness Lance Nix (ECF No. 83).

IT IS SO ORDERED.

Date: December 20, 2012

s/Julian Abele Cook, Jr.  
JULIAN ABELE COOK, JR.  
U.S. District Judge

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing Order was served upon counsel of record via the Court's ECF System to their respective email addresses or First Class U.S. mail to the non-ECF participants on December 20, 2012.

s/ Kay Doaks  
Case Manager